Title: "Modulation Compression Method For The
Radio Frequency Transmission of High Speed Data"
Serial No. 10/766,556
Attorney Docket No. P031686-0-07UT
Responsive to Office Action Mailed January 25, 2005
Date: June 14, 2005

IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

Applicant: **Joseph Bobier and Nadeem Khan**)		
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Serial No: **10/766,556**)	Group Art Unit: **2631**	
)		
Filed: **January 28, 2004**)	Examiner: **Bocure, Tesfaldet**	
)		
For: **Modulation Compression Method For**)		
The Radio Frequency Transmission)		
Of High Speed Data)		
)		
Attorney Docket: **P031696-07UT**)		

Mail Stop AMENDMENT
Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

RESPONSE

In response to the Office Action mailed January 25, 2005, Applicant respectfully requests reconsideration of the above-referenced application in light of this response, the revised drawings, and amendment to the specification and claims as stated in the following paragraphs.

The Examiner has objected to the drawings under 37 CFR 1.83(a) as incompletely showing every feature of the invention as specified in the claims, specifically "compression method comprising the steps for generating, grouping, correlating, and modulating in Claims 1,8 and 11". Examiner has stated that these embodiments must be shown or the features or be cancelled from the claim(s) and that no new matter should be entered.

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Applicant certainly appreciates the Examiner's thorough review of this important application, and Applicant agrees with the Examiner's finding that some of these features of the claims are not shown in the drawings. Although there is no specific drawing indicating the generation of a signal, the generation of the signal is not a necessary element of the claims as the compression and modulation method would naturally be applied to a signal that must have been generated so the Applicant has removed that element from the claims. The modulation/demodulation and transmission/reception of the compressed signal are now shown on revised Figures 9 and 10. No new matter has been added as these items have been clearly described in the specification. Applicant has also noticed that Figures 9 and 10 were improperly labeled in the specification and has amended several paragraphs of the specification below to correct this mistake.

Applicant respectfully disagrees with the Examiner's statement that the grouping and correlating steps of the claims are not shown in the figures. The repeating serial data frame register of Figure 10 clearly creates groups based on the register size, e.g. a register size of 16 as shown creates a group of 16. The data buffer and subsequent Yes/No logic steps correlates the incoming data stream to the serial register and sets modulation events based on this correlation. This process is described in paragraphs 77 through 83 of the specification and is in the figures and tables.

The Examiner has also rejected the claims under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The Examiner has stated that the third cycle is exaggerated (actually lowered in frequency creating a longer wavelength) in Figures 4 and 7 which relates to binary values in tables 5 and 8 respectively. The Examiner asks how the system would encode the rest of the binary values shown in Figures 5 and 8 given that the cycle three is exaggerated. Applicant believes the Examiner has misinterpreted the figures in that the frequency change of cycle 3 is just an example of one of the 16 possible cycles of the group that could be frequency changed. If cycle 4 is changed then that would relate to a different binary value as shown in the tables and so on for all the individual discrete cycles of the group. The

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discussion in paragraph 77 describes this in more detail, indicating that any cycle could be changed. The discussion in paragraph 78 is explaining the specific example of one of the cycles being changed as shown in the figures. The Applicant has amended the specification below to clarify this. No new matter was added.

Finally the Examiner has rejected Claims 1-16 under 35 U.S.C. 103(a) as being obvious over Bobier et al. (Patent Publication Number US/2002/0058484). Applicant agrees with the Examiner that Bobier teaches an RF transmission system for transmitting a binary information signal having first and second states comprising: a carrier frequency having wavelet between zero crossover positions representing zero energy locations; the carrier wavelet to be modulated with the binary zeros and ones is a single duty cycle and modulating the carrier wavelet with the binary values having an amplitude variation corresponding to the binary values. This is the modulation system discussed in this patent application is one of the modulation systems this innovative compression methods works with. But, Applicant disagrees with the Examiner's statement that it would be obvious to one skilled in the art to have determined this compression system from the prior disclosure of Bobier. Nowhere in the prior Bobier disclosure is this compression system described, suggested, or even hinted at. The Examiner states that Bobier does not show the grouping or correlating steps. These steps are the essential elements of the claims as now amended below. The Examiner just makes the statement that this would be obvious with no substantiation to this statement.

It is not enough that the Examiner present references that contain the assorted features of the invention (which Applicant believes the Examiner has not accomplished in this case). The Examiner must also show why it would appear that the reference would make obvious to someone skilled in the art Applicant's disclosure. The prior art Bobier disclosure, in no way makes obvious, anticipates or suggests the invention of a compression method applied to data transmission using integer cycle or impulse modulation techniques as claimed in Applicant's application.

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The present invention, i.e., an invention with the ability greatly increase the transmission of data and greatly decrease the bandwidth required, as defined in Claims 1 through 14, is not made obvious by, and is not taught by the reference cited. The Examiner has used the claimed invention as a reference against itself as if it had preceded itself in time. Legal authority invalidates such an analytical or reverse engineering approach to patent examinations.

The difficult task of the Examiner is to not "fall victim to the insidious effects of a hindsight syndrome wherein that which only the inventor taught is used against its teacher." W.L. Gore & Associates v. Garlock, Inc., 22 USPQ 303, 312-313 (Fed Cir. 1983).

The claims in this important patent application are in fact drawn to a novel, useful and nonobvious invention. Accordingly, Applicant respectfully submits that the invention claimed is clearly patentable over such prior art.